MUSEUM OF INDUSTRY (DUBLIN).

RETURN to an Order of the Honourable The House of Commons, dated 3 May 1854;—*for*,

STATEMENTS "of Amount Voted by Parliament, or Expended from other Sources, for the Museum of Industry, *Stephen's Green, Dublin*, during each Year since the Formation of that Institution; distinguishing the Amount Expended in purchasing the Premises, in Building, or Enlarging or Repairing, in Rent, in Fittings and Furniture, in Salaries, and in Purchases of Specimens or Collections:"

"Of the Number and Subjects of Lectures Delivered, and by whom; of the Reports or Publications Issued; of the Amount of Fees Received, and how Applied, during the Year 1853:"

"And, of the Number of Days on which the Director of the Museum has been in Attendance at the Museum during the Year 1853, and of the other Offices held by the Director."

(*Mr. Hamilton.*)

Ordered, by The House of Commons, *to be Printed,*
27 *June* 1854.

331.

MUSEUM OF IRISH INDUSTRY, DUBLIN.

Return No. 1.—Statement of Amount voted by Parliament or expended from other Sources for the Museum of Irish Industry, Stephen's Green, Dublin, during each Year since the formation of the Institution; distinguishing the Amount expended in purchasing the Premises, in Building, or Enlarging or Repairing, in Rent, in Fittings and Furniture, in Salaries, and in purchases of Specimens or Collections.

Return No. 2.—Of the Number and Subjects of Lectures delivered, and by whom.

Return No. 3.—Of the Reports or Publications issued.

Return No. 4.—Of the Amount of Fees received, and how applied, during the Year 1853.

Return No. 5.—Of the Number of Days in which the Director of the Museum has been in attendance at the Museum during the Year 1853, and of the other Offices held by the Director.

(signed) *Robert Kane*,
Director.

22 May 1854.

Return No. I.

STATEMENT of Amount voted by Parliament, or expended from other Sources, for the Museum of Irish Industry, *Stephen's Green, Dublin*, during each Year since the formation of the Institution, distinguishing the Amount expended in purchasing the Premises, in Building, or Enlarging or Repairing, in Rent, in Fittings and Furniture, in Salaries, and in Purchases of Specimens or Collections.

1. For amount voted by Parliament in each year. *See* annexed Table (A.)
2. For amount expended by the Museum in each year. *See* annexed Table (B.)
3. For amount expended from other sources.

The arrangements for systematic instruction by lectures, &c., for which fees should be paid, available for the purposes of the Museum, not being as yet in practical operation, the only funds besides Parliamentary grants that have been so made available, have been in the form of property by donations of specimens of industrial materials and products, and also books. The former have been very large, especially during the past year, but no exact money valuation of such donations has been made or could be made without much time. The nature and amount of these donations have been annually reported to Parliament, and printed with the estimates for the Museum, to which papers therefore reference may be made. For fuller information a copy of the form of circular employed to obtain donations, and to give information as to the nature and objects of the Museum, is annexed. Paper (C.)

STATEMENT of Items and Amount of Parliamentary Grants made to the Museum of Irish Industry in each Year from 1 April 1845 to 31 March 1854, respectively.

DESCRIPTION of ITEMS IN GRANT.	1 April 1845 to 31 March 1846	1 April 1846 to 31 March 1847	1 April 1847 to 31 March 1848	1 April 1848 to 31 March 1849	1 April 1849 to 31 March 1850.	1 April 1850 to 31 March 1851	1 April 1851 to 31 March 1852.	1 April 1852 to 31 March 1853	1 April 1853 to 31 March 1854.	General Total.	REMARKS.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
Rent of House 51, Stephen's-green	- - -	202 6 –	202 6 –	202 6 –	202 6 –	202 6 –	202 6 –	202 6 –	202 6 –	1,620 0 –	* The yearly rent has been paid to such year through the Office of Works in London directly
Casual Rates, Repairs, Fuel, and other Household Charges.	- - -	- - -	166 – –	160 –	150 – –	166 – –	250 – –	250 – –	260 – –	1,560 – –	
Cases, and other Fitted Furniture for the New Galleries, Offices, Library and Laboratories of the Museum	- - -	400 – –	600 – –	305 – –	500 – –	600 – –	500 – –	600 –	500 – –	3,350 – –	
Contingencies in the immediate Department of the Director, including Purchases of Specimens and Books, Materials for Laboratories, and Sundry Office Expenses	300 – –	400 – –	300 – –	400 – –	400 – –	500 – –	500 – –	500 – –	500 – –	4,400 – –	
Salaries. Director	500 – –	500 – –	500 – –	500 – –	500 – –	500 – –	500 – –	600 – –	500 – –	5,700 – –	
Salaries. Chemist	* During these years the Salaries of the Chemists and Porters were paid from the Contingency Fund and the Salaries of the Curator and Accountant and House Servant from the Fund for Household Charges from which the House Servant is still paid						120 – –	120 – –	200 – –	440 – –	
Salaries. Assistant Chemist							60 – –	60 – –	100 – –	220 – –	
Salaries. Curator and Accountant							60 – –	60 – –	100 – –	220 – –	
Salaries. Hall Porter and Messenger							29 18 –	46 7 2	40 – –	116 5 2	
Salaries. Laboratory Porter							21 15 –	21 16 –	26 – –	69 10 –	
Salaries. Extra Cleaning and Attendance							- - -	- - -	26 – –	26 – –	
Purchase of House	- - -	1,560 – –	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1,560 – –	
Erecting New Galleries and Lecture Theatre.	- - -	- - -	- - -	1,837 – –	1,837 – –	1,837 10 –	1,837 10 –	- - -	- - -	7,348 – –	* These charges have been paid through the Office of Works in London directly
Solicitor's Charges	- - -	- - -	- - -	- - -	101 –	96 4 –	- - -	- - -	- - -	197 4 –	
Purchase of Marbles	- - -	- - -	- - -	- - -	300 –	- - -	- - -	- - -	- - -	300 – –	
Special Expense of Inquiry into Processes for Distilling Peat.	- - -	- - -	- - -	- - -	-	100 – –	- - -	- - -	- - -	100 – –	
Repairs of Railings, Front and Entrance to Museum	- - -		- - -	- - -	- - -	- - -	200 – –	- - -	- - -	200 – –	
Internal Fittings of Lecture Theatre and Preparation Rooms, Flagging Areas, Granite Footways and Steps, Walls, and completing Courtyard	- - -	- - -	- - -	- - -	- - -	- - -	-	550 – –	- - -	550 – –	
Architect's Fees.	- - -	- - -	- - -	- - -	- - -	- - -	- - -	400 – –	- - -	400 – –	
Repairs and Completion of Boundary Walls, and Plastering North Side of Galleries	- - -	- - -	- - -	- - -	- - -	- - -	- - -	76 – –	- - -	76 – –	
Gass Fittings and Stoves in Galleries, and Lecture Rooms.	- - -	- - -	- - -	- - -	- - -	- - -	- - -	118 – –	- - -	118 – –	
Special Expense of Enquiry into Proposed Processes for Preparing Flax	- - -	- - -	- - -	- - -	- - -	- - -	- - -	100 – –	- - -	100 – –	
For Enlarging and Replacing the Old Windows in the part of the Old Buildings joining the New Galleries and completing the Porches of the Main Entrances to the Galleries and Museum	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	100 – –	100 – –	
TOTAL - - £.	800 – –	2,903 6 –	1,463 6 –	3,290 6 –	3,750 6 –	3,637 – –	4,183 6 –	5,361 8 2	3,404 6 –	25,748 7 2	

A 2

(B)

STATEMENT of ITEMS, and AMOUNT of EXPENDITURE of PARLIAMENTARY GRANTS made by the MUSEUM of IRISH INDUSTRY, from the 1st April 1846 to 31st March 1854, together with a Supplemental Column, showing the BALANCES of PARLIAMENTARY GRANTS provided for, and allocated to, the several Items of Service, but not as yet Expended, on 31st March 1854.

HEADS of EXPENDITURE.	1 April 1845 to 31 March 1846.	1 April 1846 to 31 March 1847.	1 April 1847 to 31 March 1848.	1 April 1848 to 31 March 1849.	1 April 1849 to 31 March 1850.	1 April 1850 to 31 March 1851.	1 April 1851 to 31 March 1852.	1 April 1852 to 31 March 1853.	1 April 1853 to 31 March 1854.	GENERAL TOTAL.	Supplemental Column, showing the Balances of Parliamentary Grants provided for, and allocated to, the several Items of Service, but not yet Expended, on 31st March 1854.	
	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.		£. s. d.
Purchase of Premises	- - -	1,500 –	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1,560 - -	Balance due on contracts for building of Galleries, &c.	900 - -
New Building Expenses	- - -	- -	- -	- -	3,150 - -	1,790 - -	2,100 - -	600 - -	- -	6,690 - -		
Other Expenses of Building, &c.	- - -	144 7 0½	326 10 -½	50 18 7½	254 9 11½	14 0 5	190 1 -	74 18 -	188 - -	1,393 10 10	For building and fitting of Lecture Theatre and Preparation Rooms, &c.	320 - -
Rent	- - -	(a) 300 6 -	303 6 -	305 6 -	303 6 -	300 5 -	303 6 -	303 6 -	200 3 -	1,626 8 -		
Fittings and Furniture	- - -	210 1 -	320 8 4	302 16 0½	303 18 7	181 14 5	925 6 10	637 14 4	438 1 0	3,863 10 4½	Works in Ground round Museum and on North Wing and Boundary Railings	70 - -
Salaries. Director	200 - -	300 - -	300 - -	300 - -	300 - -	310 -	300 - -	300 - -	300 - -	2,700 - -		
Chemist	- - -	80 - -	80 - -	76 0 8	80 - -	100 - -	100 - -	(b) 360 - -	200 - -	933 6 8	Pedestals, Railings, and Painting front of Museum	800 - -
Clerk and Curator	- - -	42 10 -	60 7 -	90 1 0	90 16 0	90 1 0	90 - -	90 - -	100 - -	657 5 0		
Assistant Chemist	- - -	- - -	- - -	60 - -	100 - -	60 - -	30 - -	(c) 130 - -	100 - -	420 - -		
Laboratory Porter	- - -	30 - -	33 5 -	30 1 8	30 - -	31 15 -	31 15 -	31 10 -	18 5 -	215 10 8	Completion of Windows in ends of Galleries.	30 - -
Hall Porter	- - -	- - -	20 9 4	18 10 10	18 10 -	19 15 -	30 9 -	30 14 2	20 4 0	137 10 6	Balance of Allocation for Gas Fittings and Stoves.	91 9 -
Messenger	- - -	- - -	- - -	- - -	- - -	- - -	18 10 -	35 13 -	18 6 -	71 11		
Housemaid	- - -	10 - -	30 - -	30 - -	30 - -	30 - -	30 - -	30 - -	30 - -	227 - -	Cases and fitted Furniture of Galleries, Office, and Laboratories.	850 - -
Purchase of Specimens and Books, &c.	7 16 6	39 6 10	90 10 9	110 18 7	190 1 2	31 6 4	40 - 6	242 9 9	457 4 0½	1,176 14 11½		
Laboratory and Museum Expenses, Mapping, Travelling and Office Expenses.	16 11 10	30 10 -	144 7 -½	126 6 11½	201 17 8½	272 6 6½	303 17 11	316 - 0¾	127 6 4½	1,418 6 7½	Specimens and Contingencies.	9 4 -
Household Charges	- - -	- - -	- - -	- - -	- - -	63 10 0½	127 10 0¼	78 14 9½	130 10 10	417 15 4½	Balance of Grant for Architect's Fees.	300 - -
Contingencies	- - -	- - -	- - -	- - -	- - -	10 4 4½	20 4 ½	15 10 9	47 19 0	94 16 4½		
TOTAL - - - £.	318 4 4	2,873 12 7½	1,856 0 9	1,881 8 4¾	4,034 13 7¾	3,174 - 0½	4,599 17 10½	3,600 10 0¾	2,460 14 11½	20,255 16 10½		3,408 6 -

(a) This Yearly Rent has always been paid through the Office of Works in London.

(b) Including 50 l. allowed in 1852–53 by Treasury Minute, for Special Scientific Services.

(c) Including 30 l., allowed in 1852–53 by Treasury Minute, for Special Scientific Services.

I certify that the above Return is made correctly and accurately to the best of my knowledge,
Robert Kane, Director.

I have carefully prepared the calculations of the above-stated Amounts, and believe them to be correct,
James Young, Clerk and Curator

(C.)

MUSEUM OF IRISH INDUSTRY, 51, ST. STEPHEN'S GREEN, EAST;

Founded by her Majesty's Government for the promotion of Industrial Science and Education, and for the improvement of Mining, Metallurgy, and Mechanical and Chemical Manufactures in Ireland.

THE Museum of Irish Industry has for its primary object the exhibition and illustration of the rich and varied materials for mining and manufacturing industry, which exist in Ireland, and which had not been hitherto so brought together and arranged as to afford the accurate information as to their sources, nature, and uses, which is requisite for practical manufacturing success.

The Museum of Irish Industry is thus very nearly on the plan of the Museum of Geology and College of Mines and Manufactures, founded similarly by Her Majesty's Government in London (Jermyn-street), but that to meet the special circumstances of Ireland, the institution in Dublin embraces more general departments of chemical and mechanical industry, the proper development of which in Ireland is of so much national importance.

The galleries of the Museum contain therefore collections of the metallic ores, fuels, rocks, minerals, clays, and all such other substances as are found native in Ireland, and in each case the raw material is traced through its industrial history, so as to exhibit the processes to which it is subjected, and the products which are obtained or obtainable from its practical use.

Where the raw material existing in Ireland is not as yet fully utilised, the illustrations of its uses and treatment are exhibited by series of specimens selected from localities, British or foreign, where such raw materials, Irish or otherwise, are properly worked for industrial objects.

The industrial information afforded in those branches of science is completed by the juxtaposition of a series of examples illustrating the history of those industrial arts, the special characters they have presented in other countries, and the modifications they have undergone as to processes and material at the most important periods of industrial progress.

In the cases of the several metals of extensive use in the arts, the history of each metal is given by the character of its mines, its ores, the processes and products of its smelting. Its uses in the metallic state and as alloy, and the several chemical products into which it is converted.

In the special chemical manufactures of non-metallic bodies, the materials used are traced from their origin, through their stages of manufacture to their final industrial applications.

In the vitreous and ceramic manufactures, the materials which exist in Ireland available for the glass, earthenware, and porcelain manufactures are shown, their qualities indicated, the processes and products of manufacture exhibited, and the history of those important branches of industry illustrated by examples of the more remarkable products of the eminent British and foreign manufactories.

It being indispensable for the purposes of mining operations and inquiries that full information should be afforded, not merely as to the localities of the special metallic ores, but upon the general geological and mineralogical structure of Ireland, a department of the Museum is devoted to the geological specimens of rocks and fossils collected by the officers of the Geological Survey of Ireland. This collection is further illustrated by a series of British specimens similarly collected by the officers of the Geological Survey. There are also collections of the minerals of Ireland similarly illustrated by typical collections from British and foreign sources.

The zoological and botanical products of Ireland are in so far exhibited, as they afford materials for the manufacturing industries and fisheries. In the latter department, the special circumstances are shown by series of specimens of the fish occurring in the rivers and on the coasts of Ireland, the baits usual or to be recommended, models of vessels, nets, and other implements of capture used, and also of such as being used elsewhere are desirable to be substituted for the native arrangements.

The

The textile and other similar industries of animal and vegetable tissues or fibres are illustrated in their several stages from the raw materials to the characteristic finished products; the special adaptations of colour to decorations of such fabrics are illustrated by series of the materials used in the processes of dyeing, mordants, &c. Those industries are classified according as the material is of vegetable origin, as flax and cotton; of animal origin, as hair, silk or wool; or of mixed nature, as in the formation of tabinet.

A principal department of the Museum is specially devoted to the exhibition and illustration of building materials. Those form two divisions: 1st. Ordinary building materials, in which are collections of building stones from all the important quarries in Ireland, with flags, bricks, slates, tiles, &c., so that architects from inspection of these materials can ascertain the nature and qualities of the materials available for building purposes in any given locality. 2d. Decorative building materials, as the rich and varied collections of the marbles of Ireland, and the various artificial imitations of marbles, ornamental cements, tiles, pannelling, and papers, the applications of stained glass to decorative purposes, alabasters, woods, &c.

The information afforded by collections of specimens being imperfect, unless properly guided by scientific information and instruction, provision is made for having systematic industrial instruction given in the Museum by courses of lectures and other appropriate means. For this purpose the Museum contains a spacious theatre and preparation rooms for the several lectures.

The Museum includes a chemical department, with analytical and metallurgic laboratories, destined for carrying on such investigations as may extend our knowledge of the physical history and industrial capabilities of Ireland, and supply that scientific information as to the nature of the soils upon which sound agricultural improvement must be based. From this department have already issued reports upon the beet-root sugar industry, on the commercial products obtained by distilling peat, on the new processes for preparing flax, on the composition of root crops, and on other topics of public industrial interest.

Among the works in course of preparation by the officers of the Museum are two series of maps of the Irish counties, the one series exhibiting the distribution of the agricultural soil of Ireland, according to its financial value, based on the official valuation by Mr. Griffiths, and the other exhibiting the distribution of the agricultural soils of Ireland according to their scientific and chemical character, thus supplying information of the most practically valuable kind to those interested in the purchase or improvement of landed property.

The Museum buildings consist of the extensive front to Stephen's Green, in which are situated the offices, library, and laboratories, and of a square of buildings behind, of which three sides are occupied by the exhibition galleries, and the fourth by the lecture theatre and preparation rooms. The ranges of galleries occupy two stories, connected by wide double staircases; the lower stories of galleries is devoted to materials and products of mineral or inorganic origin, the upper story is allocated to substances of organic origin, animal and vegetable. By this means the collections are made to represent a natural sequence, in which, commencing with the oldest geological formation, and with dead nature, the series proceeds with the development of form and life to the industries which employ the material of existing animals and plants. For more precise explanation of the plan and distribution of the departments in the Museum a sketch is annexed, with lettered references.

In the organization of the National Institution on the plan now described, so much progress has already been made that in most departments the arrangement of the collections for illustration and instruction is nearly complete. It is still, however, much to be desired that the landed proprietors, manufacturers, and all other classes interested in the welfare of Ireland, should co-operate with the officers of the Museum in carrying out those extended and beneficial objects; hence such persons are earnestly requested to forward, as donations to the Museum, all such specimens illustrative of the localities to which they belong, or of the industry in which they are engaged, as they can collect. The receipt of all such donations will be publicly and officially acknowledged by the Director of the Museum, Sir Robert Kane, on the part of the Governmental authorities; and arrangements can be made as to carriage, &c., in the case of specimens of special interest or magnitude.

The Galleries of the Museum will be open to the public on every day, from 11 till 4 o'clock, except where still occupied by workmen.

The valuation and other maps can be inspected on application to the map curator, Mr. Penny.

The Chemical Department is necessarily private, except on the introduction of the chemical officers, Dr. Sullivan and Mr. Gages, or of the Director of the Museum.

All communications on the business of the Museum are to be addressed to Sir Robert Kane, Director, Museum of Irish Industry, Stephen's Green East.

EXPLANATORY REFERENCES TO THE PLANS.

CASES.

Lower Cross Gallery.

A & D.—Building Stones; Topographical Collections.
B.—Building Stones; Experimental Collections.
C.—Building Stones; Comparative Collections.
3.—Building Materials; Slates and Flags.
1.—Building Materials; Bricks, Tiles, and Cements.
2.—Marbles and Decorative Building Materials.

Lower South Gallery.

H.—Rocks of Ireland; Lithological and Topographical.
G.—Rocks of Ireland; Stratigraphical Collection.
4.—Minerals; Typical Collection.
F.—Mining and Metallurgy of Copper and Lead.
5.—Industrial Products of Copper and Lead.
E.—Minerals; Irish Collection.

Lower North Gallery.

I.—Mineral Chemical Manufactures.
K.—Mining and Metallurgy of Iron.
M.—Fuels of Ireland and their Products.
L.—Manufactures of Glass and Earthenware.
6.—Industrial Products of Tin, Nickel, &c.
7.—Historical and Typical Collection of Earthenware, Porcelain, and Glass.

Upper North Gallery.

O.—Textile Manufactures; Flax.
N.—Textile Manufactures; Hemp and Cotton.
P.—Textile Manufactures; Silk, Wool, Hair, &c.
Q.—Organic Chemical Manufactures.
8.—Tissues and Products of Vegetable Origin.
9.—Tissues and Products of Animal Origin.

Upper Cross Gallery.

R.—Fisheries of Ireland.
S.—Typical Collection of existing Irish Fishes.
T.—Typical Collection of existing Irish Birds and Quadrupeds.
10.—Collection of Models of Boats and Implements of Fishing.
12.—Collection illustrative of the Structure and Habits of Fish, and the associated Molluscous and other Animals.

Upper South Gallery.

U. X. Y. Z.	British Fossils -	Palæozoic. Lower Secondary. Upper Secondary. Tertiary.

14. 15.	Irish Fossils -	Palæozoic. Secondary. Tertiary.

RETURN No. 2.

Of the Number and Subjects of LECTURES delivered, and by whom.

THE professors or lecturers in connexion with the Museum of Irish Industry have not been as yet appointed, and consequently no lectures have been as yet delivered. The building and fitting up of the lecture theatre and preparation rooms is, however, now so far complete that lectures may be commenced and systematic courses of instruction carried on without delay.

RETURN No. 3.

Of the REPORTS or PUBLICATIONS Issued.

These may be classified as follows:

CLASS 1.

REPORTS of Analyses and Investigations made in connexion with and for the purposes of the Geological Survey of Ireland.

- A.—Analytical investigation of mispickel ore.
- B.—Analyses of hyperstbene.
- C.—Analyses of seven varieties of intrusive greenstones of the County Wicklow.
- D.—Report of examination of nine varieties of granites, elvans, and altered slates of County Wicklow.
- E.—Analyses of mica.
- F.—Report and analyses of eighteen varieties of dolomitic limestones from County Kilkenny.

Of the above reports, that of the analyses of mica has been published by the Museum. The other reports, being for the purposes of the Geological Survey of Ireland, will be embodied in and published with the geological reports of the several localities to which they refer.

Considerable progress has been made with a very extended investigation into the composition of the felspathic and hornblendic rocks of the County Wicklow. The analytical portions of this work, perhaps the most laborious and extensive of its kind ever undertaken, will include between 400 and 500 quantitative analyses of rock specimens.

CLASS 2.

REPORTS of Investigations made by desire of the Governmental authorities.

- A.—Report on the nature and products of the process of the destructive distillation of peat, considered specially with reference to its employment as a branch of manufacturing industry.

This report, which occupied nine months of incessant labour in its preparation, contains the numerical results of the determination of the water-ash, charcoal, and volatile matters, yielded by each of 27 carefully selected samples of peat from different parts of the country; 54 determinations of the nitrogen contained in the same peats; 27 complete analyses of the ashes, and seven determinations of their ultimate composition; seven series of distillations in close vessels of selected peats, and three in a blast of air, with determinations of the qualities of

water,

water, tar, charcoal, and gas produced by their destructive distillation, and the quantity of ammonia, wood, spirit, and acetic acid contained in the water, and of paraffine and of oils by the distillation of the tar.

This report was printed and presented to both Houses of Parliament by command of Her Majesty.

B.—Report of inquiry into the composition and cultivation of the sugar beet in Ireland, and its application to the manufacture of sugar.

This report contains the numerical results of 118 analyses of the sugar beet grown in 11 counties of Ireland, and of seven analyses of the sugar beet grown in Belgium, besides 15 analyses of other varieties of the beet and bulbous plants, and 33 complete analyses of the soils upon which the beet was grown.

There is appended to the report a supplement containing the results of a number of experiments carried out on a large scale to ascertain the per centage of sugar which could be obtained from Irish grown roots by the ordinary processes of manufacture.

This report was printed and laid before both Houses of Parliament by command of Her Majesty.

C.—Inquiry into the relative values of small and large roots.

Of this investigation, which is a continuation of the above report, only an abstract has been as yet published, owing to the statistical information not having been as yet fully obtained. It includes about 500 analyses of roots from about 22 counties of Ireland.

D.—Report and analyses of certain brown and white bread used in workhouses in Ireland; made by desire of Poor-law Commissioners.

E.—Report and analyses of certain stream and lake waters, made by desire of Poor-law Commissioners.

F.—Report and plans for disinfection of night soil in workhouses, made for Poor-law Commissioners.

G.—Report of examination of certain plastic clays, made by desire of Board of Works.

H.—Report and analyses of six specimens of sea water affecting harbours, made by desire of Board of Works.

I.—Report and analyses of water of River Shannon and of Lough Ree, and of certain mortars, made by desire of Board of Works.

K.—Analyses of river gravel, made by desire of Board of Works.

L.—Inquiry into the nature of the water used in the military barracks at Mullingar, and several other places, made by desire of His Royal Highness the Duke of Cambridge.

M.—Report and analyses of the soils of the Phœnix Park preparatory to the drainage of same, made by desire of His Excellency the Lord Lieutenant.

N.—Report of inquiry into the nature and results of the processes proposed for converting flax into a material possessing the proporties of cotton.

This report was printed and presented by command of Her Majesty to both Houses of Parliament.

O.—Report on the composition of Swedish turnips and other bulbous roots, made by desire of the Royal Agricultural Improvement Society.

CLASS 3.

Construction of a series of Agrological maps, representing the chemical composition and state of mechanical aggregation of the agricultural soil in each county in Ireland.

The chemical portion of this work consists in the analyses of the soils and the classifications of the gravels or rock fragments, according to their mineralogical character. Four counties have been already completed, so far as the soils supplied have enabled that to be done. Considerable progress has also been made with a fifth county, and two other counties have been commenced.

The following are the number of analyses of soils which have been made of those counties respectively:

Soils and subsoils of the county of Wicklow, including eight special analyses of selected soils - - -	140
Soils and subsoils of the county of Kildare, including eight special analyses of selected soils - - -	153
Soils and subsoils of the county Dublin - - -	78
Soils and subsoils of the county Carlow - - - -	62
Soils and subsoils of the county Wexford - - -	230
Soils of the county Kilkenny - - - - -	6
Soils of the Queen's County - - - - - -	5
Special analyses and examination of the marls and sands of the barony of Arklow, county Wicklow - - -	53
Investigations regarding the physical qualities of soils -	24

Considerable progress has been made in the construction of the maps embodying the above results, together with the general physical characters of the several counties.

That of Kildare is ready for publication.

The contour maps, necessary for delineation of the surface, are being prepared for the other counties; and the reduction of the numerical calculations of results is being proceeded with. The descriptive memoirs which should accompany those maps cannot be completed, however, until the geological memoirs of the respective localities prepared by the officers of the Geological Survey shall have been published and made available for reference.

Class 4.

Construction of a series of maps of the Irish counties, representing the distribution of the financial value of land.

This work, the practical utility of which has been so fully appreciated, is now very nearly complete, and the valuation maps of nearly all the Irish counties are ready for publication. The following counties are quite complete; viz.,

Antrim.
Armagh.
Cavan.
Donegal.
Down.
Fermanagh.
Londonderry.
Monaghan.
Tyrone.
Galway.
Leitrim.
Mayo.
Roscommon.
Sligo.
Carlow.
Dublin.
Kildare.
Kilkenny.
King's County.
Longford.
Louth.
Meath.
Queen's County.
Westmeath.
Wexford.
Wicklow.
Waterford.

The maps of the following counties are in hand, and nearly complete; viz.,

Clare, Cork, Kerry, Limerick, and Tipperary.

There are two kinds of such maps of each county. In the one, the detailed Map, the position, limit, and financial value of every individual townland is given. On the other, termed the generalized Map, the individual townlands are not marked in, and the values are grouped according to the classification of soils, viz.,

1. Soils destitute of agricultural vslue.
2. Soils of inferior agricultural value.
3. Soils of medium agricultural value.
4. Soils of superior agricultural value.
5. Soils of factitious values, from peculiarity of position, &c.

For ordinary practical purposes, the generalised Maps will be found sufficient.

RETURN No. 4.

OF the Amount of Fees received, and how applied during the year 1853.

No fees have been received by the Museum during the year 1853, the arrangements for the lectures or instruction to be paid for by fees not having been as yet made.

RETURN No. 5.

OF the Number of Days in which the Director of the Museum has been in attendance at the Museum during the Year 1853, and of the other Offices held by the Director.

No daily record is kept of the attendance of the Director of the Museum of Irish Industry, but it may be estimated that he attended at the Museum on 200 days in the year 1853.

The Director of the Museum of Irish Industry holds also the office of President of Queen's College, Cork, which office occupies at intervals about one-third of his time, the remaining two-thirds being practically devoted to the organization and administration of the Museum of Irish Industry.

(signed) *Robert Kane,*
Director.

22 May 1854.

MUSEUM OF INDUSTRY (DUBLIN).

STATEMENTS of the AMOUNT VOTED by Parliament, or Expended from other Sources, for the MUSEUM OF INDUSTRY, *Stephen's Green, Dublin*, during each Year since the Formation of that Institution;—Of the Number and Subjects of LECTURES Delivered; Reports, &c. Issued; Amount of FEES Received, and how Applied, during the Year 1853;—and Number of DAYS the Director of the Museum has been in Attendance during the Year 1853; and of the other Offices held by him.

(*Mr. Hamilton.*)

Ordered, by The House of Commons, *to be Printed,*
27 *June* 1854.

[*Price 6d.*]

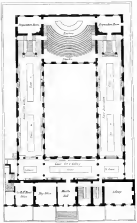
331.

Under 2 *oz.*

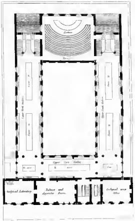
[To face page 8.]

MUSEUM OF IRISH INDUSTRY, STEPHEN'S GREEN, DUBLIN.

LOWER GALLERIES & OFFICES



UPPER GALLERIES & LABORATORIES



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No 331 Ordered by the House of Commons to be Printed 27th June 1854

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